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Indicators of State Failure:

Phase III

Jordan Miller
CAE Professional Services

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Contract Scientific Authority
Dr. Peter Tikuisis
(416) 635-2099

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Indicators of State Failure

Phase III

Jordan Miller, CAE Professional Services



CAE Professional Services
300-1135 Innovation Dr
Ottawa, ON
K2K 3G7

Defence R&D Canada – Toronto

1133 Sheppard Avenue West
P.O. Box 2000
Toronto, Ontario
Canada M3M 3B9
Contract Report

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Principal Author

Original signed by Jordan Miller

Jordan Miller

CAE Professional Services Canada

Approved by

Original signed by Peter Tikuisis

Peter Tikuisis

Contract Scientific Authority

Approved for release by

Original signed by Kim Wulterkens

Kim Wulterkens

For Chair, Knowledge and Information Management Committee

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Abstract

This brief report documents the collection of supplemental data to augment the second phase of a research effort to develop an early warning model for monitoring state instability and predicting pending failure. This complemented and extended earlier efforts to develop a conceptual model and to characterize triggers, the final events recorded between non-violence and violence (relative stability and instability). Given the experimental nature of the research, more data are required to provide a greater breadth of analysis. A more diverse data set, in term of regional representation, the magnitude of violence, the magnitude of instability, would provide a more nuanced result. This document summarizes the supplementary data collection to support this effort.

Résumé

Le présent rapport sommaire fait état des données recueillies pour compléter celles ayant été amassées durant la deuxième phase d'un projet de recherche visant à élaborer un modèle de pré-alerte servant à surveiller l'instabilité des états et à prévoir leur mise en déroute. Ce travail vient compléter les efforts précédemment déployés pour mettre au point un modèle conceptuel et pour caractériser les éléments déclencheurs, soit les derniers incidents enregistrés avant le passage de l'état de tranquillité au désordre (ou de la stabilité relative à l'instabilité). Vu la nature expérimentale de la recherche, davantage de données devront être recueillies afin d'élargir la portée de l'analyse. En disposant d'un ensemble de données plus diversifiées sur le plan de la représentativité régionale et du degré de violence et d'instabilité, on obtiendrait des résultats plus nuancés. Le présent document offre un résumé des données complémentaires recueillies pour mener à bien ce travail.

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Executive Summary

Indicators of State Failure: Phase III

Jordan Miller; DRDC Toronto CR 2010-180; Defence R&D Canada – Toronto.

As noted in the Canada First Defence Strategy and reiterated in the more recent US Quarterly Defence Review, instability and state failure in distant lands can directly affect our own security and that of our allies. Development of a predictive model has become both a topical issue and an increasingly important area of research in academic and policy communities. This is the third report documenting CAE's support to DRDC's continuing efforts to develop an Early Warning Model (EWM) of state instability.

The conceptual framework for an EWM was developed in a previous project, though without a data set to validate assumptions and the general hypothesis. The focus of the current project was to collect and code events data and integrate it with structural data that will be used to calibrate and validate the conceptual model. This formed the bulk of the work in Phase II of the project. Phase III – this phase – was supplemental to Phase II, its purpose was to collect supplemental data that would be coded and analyzed using the same methodology as that from Phase II. A descriptive framework was established and incidences of failure identified using the methodology developed by Carleton University's Country Indicators for Foreign Policy (CIFP) project. Events data were then collected for the 24 months preceding these instances of state failure. Periods of relative stability for these states were also identified and events data collected for these periods. These events were distinguished as eroding or bolstering state Authority, Legitimacy or Capacity, including the severity of the challenge recorded.

The conceptual model envisages integrating events and structural data which would allow for the measurement and monitoring of state tension and, through regression analysis, for vulnerability and instability thresholds to be determined and crises of interest to be forecast. This report documents a uniquely extensive data base that has been developed to support this effort.

Sommaire

Jordan Miller; RDDC Toronto CR 2010-190; R & D pour la défense Canada – Toronto.

Comme il est indiqué dans la Stratégie de défense *Le Canada d'abord*, et plus récemment encore dans l'examen trimestriel de la défense des États-Unis, l'instabilité et la déroute d'un état à l'autre bout du monde peuvent nuire directement à notre propre sécurité et à celle de nos alliés. Le développement d'un modèle prédictif est devenu un enjeu d'actualité et un sujet de recherche de plus en plus important dans le milieu de l'enseignement et de l'élaboration de politiques. Le présent rapport est le troisième à documenter le soutien de l'IAO aux efforts constants de RDDC pour le développement d'un modèle de pré-alerte (EWM) d'instabilité des états.

Un cadre conceptuel d'EWM a été élaboré dans le cadre d'un projet antérieur malgré l'absence d'un ensemble de données permettant de valider les présomptions et l'hypothèse générale. Le but était d'amasser et de coder des données en vue de leur intégration à des données structurelles qui seront utilisées pour étalonner et valider le cadre conceptuel. Voilà en quoi consistait principalement la phase II du projet. La phase III, celle qui est en cours, sert de complément à la phase II : elle a pour but de recueillir des données complémentaires qui seront codées et analysées en employant la même méthode qu'à la phase précédente. Un cadre descriptif a été élaboré, et des occurrences de déroute ont été cernées au moyen de la méthodologie développée dans le cadre du Projet des indicateurs-pays pour la politique étrangère (CIFP) de l'Université Carleton. Des données d'événements ont été recueillies au cours des 24 mois qui ont précédé ces occurrences de déroute d'états. On a également compilé des données d'incidents observés au cours de périodes de stabilité relative dans ces pays. On a ensuite classé ces incidents selon qu'ils nuisaient ou contribuaient au pouvoir, à la légitimité et à la capacité de l'état en question, et selon leur degré de gravité.

On s'attend à ce que le modèle conceptuel serve à intégrer des données événementielles et structurelles, permettant ainsi de mesurer et de surveiller les tensions dans les états. De plus, au moyen d'une analyse de régression, il serait possible de déterminer les seuils de vulnérabilité et d'instabilité, et de prévoir les conflits d'intérêts. Le présent rapport décrit une base de données exhaustive unique conçue pour appuyer ces recherches.

Table of contents

1	Introduction	1
1.1	Background	1
1.2	Objectives.....	1
1.3	The Team.....	2
2	The Approach	3
2.1	Introduction	3
2.2	Case Selection	3
2.3	Data Capture.....	3
2.4	Cases.....	4
	Bibliography	6
	List of symbols, abbreviations, and acronyms	7

List of figures

Figure 1: Data Entry Dashboard..... 4

List of tables

Table 1 Additional Cases..... 4

1 Introduction

1.1 Background

The Canada First Defence Strategy states that “... instability and state failure in distant lands can directly affect our own security and that of our allies.”¹ Thus, early warning analysis has become both a topical issue and an increasingly important area of research in academic and policy communities. The Canadian government has recognized the need for predictive analysis, and DRDC’s continuing work in developing a conceptual early warning model (EWM) for state instability reflects this.

This vision was the purpose for developing the research methodology and analysis framework to determine how well state failure could be predicted from data focusing specifically on the post Cold War period. This report provides an overview of the supplemental data that was collected during Phase III, supporting the initial research and analysis plan from Phase II (Tikuisis et al. 2008).

1.2 Objectives

The goal of Phase II was to support development of EWM for monitoring state instability and predicting pending failure. The purpose of this phase of work was to collect and code supplemental events data, and integrate these with state structural data for eventual calibration and validation of the conceptual model. Specifically, the project involved:

- Model definition,
- Identification of cases of state failure and test periods,
- Creation, comparison and synthesis of structural and events datasets,
- Econometric analysis of events data and specification for model testing, and
- Findings, Conclusion, and Recommendations.

The Phase II report ‘Indicators of State Failure’ analyzed events data for the purpose of informing a Crisis of Interest (COI) model, that once calibrated, could serve as an EWM. The work done in Phase 2 was a continuation of the research on triggers of state failure executed in Phase I (Hales and Miller 2008). This document summarizes the supplementary data collection that was performed during Phase III. As data collection was being completed to support the EWM development for Phase II, the scientific authority identified regional and severity gaps in the existing COIs that were selected. Correspondingly, additional COIs were added, and this report summarizes that collection process.

¹ Canada First Defence Strategy – Strategic Environment. <http://www.forces.gc.ca/site/pri/first-premier/defstra/enviro-eng.asp>

1.3 The Team

The team for Phase III consisted of CAE Professional Services (Canada) Inc., the Country Indicators for Foreign Policy (CIFP) researchers at Carleton University, and the Scientific Authority at DRDC Toronto. This team worked together during Phase II and submitted the final report collectively (Tikuisis et al. 2008), and CAE worked with DRDC Toronto on the ‘Triggers of State Failure’ in Phase I (Hales and Miller 2008).

2 The Approach

2.1 Introduction

The approach to collect data for Phase III was the same as that used in Phase II including an inter-reliability measures to check human coding consistency. The methodology used to code the data adopted the analytical approach developed by CIFP (Carment et al. 2009), referred to as ALC that distinguishes three dimensions of statehood: Authority, Legitimacy and Capacity. A state with weak Authority is unable to provide a secure and stable environment and cannot fully enforce its laws. Poor Legitimacy refers to lack of public support for government decisions and policies. Lastly, a state is weak in Capacity when it cannot mobilize public resources for protective and productive purposes.

Incidents are also evaluated along three impact dimensions (causality, escalation, and centrality), each of which is assessed according to the context of the situation. This methodology allows analysts to discriminate between the effects of similar events in different contexts. In addition, this study made use of structural data from the Political Instability Task Force (PITF) and events data from Virtual Research Associates (VRA) for comparative purposes.

2.2 Case Selection

An important consideration for case selection was the availability of data, in particular 13 months of events data prior to and including the month in which state failure occurred as defined by PITF (2009). These occurrences included either regime change, revolutionary war, or ethnic war, but not a combination of these to minimize confounding factors.

2.3 Data Capture

The data were entered into a dashboard (see Fig. 1) in Microsoft Access created specifically for this project. It was collected using LexisNexis, an open source newspaper/periodical database to search for daily events using keywords at the coder's discretion. A target of 20 to 25 randomly-selected events per month were coded according to the CIFP methodology, as outlined in the Phase II report. All the collected data were exportable to MS Excel for later analysis. Each event was entered into the dashboard according to the date the event was reported, the headline from newspaper or magazine reporting the event or a paraphrase of the headline (copyright issue), the publication the reported event came from, the score (+ or -) for stabilizing or destabilizing, respectively, and a score of 1 to 3 for each of causality, escalation and centrality.

Figure 1: Data Entry Dashboard

2.4 Cases

The cases, listed below in Table 1, were drawn from PITF (2009) and characterized as incidences of state failure owing to regime change, revolutionary war, or ethnic war.

Table 1 Additional Cases

Country	Period	Country	Period
Algeria	05/90 – 05/91	Kenya	10/90 – 10/91
Armenia	07/94 – 07/95	Lesotho	05/97 – 05/98
Belarus	04/94 – 04/95	Mali	06/89 – 06/90
Cambodia	07/96 – 07/97	Nepal	02/95 – 02/96
Central African Republic	03/02 – 03/03	Niger	01/95 – 01/96
Comoros	09/94 – 09/95	Rwanda	10/89 – 10/90
Congo-Brazzaville	04/96 – 06/97	Senegal	09/91 – 09/92
Congo-Kinshasa (DRC)	03/91 – 03/92	Sierra Leone	03/90 – 03/91
Egypt	02/91 – 02/92	Solomon Isles	06/99 – 06/00
Ethiopia (2 months)	01/99 – 02/99	Thailand (1 month)	07/03
(The) Gambia	07/93 – 07/94	Yemen	04/93 – 04/94
Haiti	09/90 – 09/91	Yugoslavia	02/97 – 02/98

Ivory Coast (6 months)	09/01 – 11/01 07/02 – 09/02	Zambia	11/95 – 11/96
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List of symbols, abbreviations, and acronyms

DND	Department of National Defence
ALC	Authority, Legitimacy and Capacity
CIFP	Country Indicators for Foreign Policy
PITF	Political Instability Task Force
VRA	Virtual Research Associates (VRA)
EWM	Early Warning Model
	FI Fragility Index

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(U) intra-state conflict;country instability; political violence; early warning; crisis forecast

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